#### (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

### (19) World Intellectual Property Organization International Bureau



# 10/501482

### (43) International Publication Date 31 July 2003 (31.07.2003)

**PCT** 

Oslo (NO).

## (10) International Publication Number WO 03/062551 A1

(51) International Patent Classification<sup>7</sup>: B63B 21/50, E01D 19/14

E04C 5/12,

[NO/NO]; Snekkerstuveien 56, N-2020 Skedsmokorset (NO).

- (21) International Application Number: PCT/NO03/00019
- (22) International Filing Date: 22 January 2003 (22.01.2003)
- (25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

20020406

25 January 2002 (25.01.2002) N

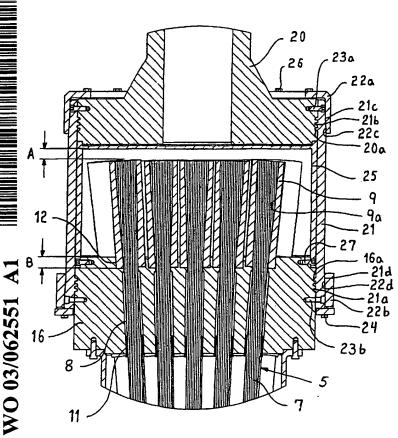
- (71) Applicant (for all designated States except US): DEEP WATER COMPOSITES AS [NO/NO]; P.O. Box 94, N-1325 Lysaker (NO).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): PAULSHUS, Bjørn

(74) Agent: PROTECTOR INTELLECTUAL PROPERTY CONSULTANTS AS; P.O. Box 5074 Majorstuen, N-0301

- (81) Designated States (national): AE, AG, AL, AM, AT (utility model), AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ (utility model), CZ, DE (utility model), DE, DK (utility model), DK, DM, DZ, EC, EE (utility model), EE, ES, FI (utility model), FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK (utility model), SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),

[Continued on next page]

(54) Title: END TERMINATION MEANS IN A TENSION LEG AND A COUPLING FOR USE BETWEEN SUCH AN END TERMINATION AND  $\Lambda$  CONNECTING POINT



(57) Abstract: An end termination means for tension legs (10) of non-metallic like composite material is materials The tension leg (10) is constructed of a number of strands (5) that constitute the load carrying elements of the tension leg (10). The strands (5) are twisted (laid) about the longitudinal axis of the tension leg (10) by a predetermined laying length and each strand (5) is in turn constructed of a plurality of rods (7) of composite material having embedded strength fibres. The rods (7) are in turn twisted about each other like in a wire rope. The strands (5) terminate near a receiving body (16) having connecting means and a number of through-going apertures enclosing the respective strands. strand (5) is passed through respective aperture (8) in the receiving body (16) without being fixed therein.

